

ABSTRACT OF THE DISCLOSURE

An impurity of one conductivity type is ionized and accelerated by electric field before being implanted into a semiconductor layer to form a high concentration impurity region near its surface. Then the semiconductor layer is irradiated with continuous wave laser light for melting and crystallization or recrystallization, through which a region where the concentration of the impurity is constant is formed in the semiconductor layer. The continuous wave laser light irradiation may bring the semiconductor layer to the crystalline phase from the amorphous phase as long as the impurity element is re-distributed. The impurity is segregated through this process to newly create a high concentration region.

10 However, this region is removed and no problem arises.